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Docket No.: 03191/000J838-US0
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Wolfgang Reik et al.

Application No.: 09/982,136 Confirmation No.: 7044

Filed: October 12, 2001 Art Unit: 3682

For: MOTOR VEHICLE Examiner: J. K. Smith

APPELLANTS' BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This brief is in furtherance of the Notice of Appeal, filed in this case on April 9, 2004.

The fees required under § 1.17(f) and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief is transmitted in triplicate.

This brief contains items under the following headings as required by 37 C.F.R. § 1.192 and M.P.E.P. § 1206:

I. Real Party In Interest
II Related Appeals and Interferences
III. Status of Claims
IV. Status of Amendments

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

LuK Lamellen und Kupplungsbau Beteiligungs KG

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 15 claims pending in application.

B. Current Status of Claims

1. Claim 6 has been canceled.

2. Claims 1-5 and 7-16 are pending in the present application.

3. Claims 1-5 and 7-16 stand finally rejected as set forth in the Office Action dated January 13, 2004.

C. Claims On Appeal

The claims on appeal are claims 1-5 and 7-16.

IV. STATUS OF AMENDMENTS

Appellants filed an Amendment After Final Rejection on February 27, 2004. The Examiner responded to the Amendment After Final Rejection in an Advisory Action mailed March 12, 2004. In the Advisory Action, the Examiner indicated that Applicants' proposed amendments to claim 1 would not be entered.

Accordingly, the claims enclosed herein as Appendix A do not incorporate the amendments to claim 1 and therefore, this amendment to claim 1 is not considered to be part of the present appeal. The last amendment to the claims that has been entered is therefore dated April 11, 2003.

V. SUMMARY OF INVENTION

As set forth in the specification at page 2, lines 13-18, one objective of the present invention is to provide an embodiment that avoids certain problems associated with an automatically actuated clutch and/or an automatically actuated transmission. This concerns in particular assembly problems as well as the cost and labor intensive testing of the assembled system.

As described in the specification at page 2, lines 23 to page 3, line 3, the present invention accomplishes this object and overcomes the deficiencies of the prior art by providing an arrangement where at least parts of the actuator device and/or of the control device are integrated in a modular unit in the area between the clutch bell housing and the transmission housing. The integral modular unit can include a carrier element.

By proposing a solution involving integration of certain parts of the actuator and/or control device in a modular unit, it will be appreciated that this permits space to be saved and also facilitates assembly and testing of the unit.

As explained at page 14, lines 16-22, and shown in Fig. 3, the carrier element 301 with the integrated elements 302, 303, 304, 305 is designed as an assembly unit 300 that can be preassembled by itself and united with the transmission housing 201 and/or the clutch bell housing 203 in a final assembly process. As a particular advantage of the pre-

assembly concept, the assembly unit 300 can be functionally tested before it is installed in the final assembly.

VI. ISSUES

The first issue is whether claims 1-5,7-8 and 6-12 should be rejected under 35 U.S.C. 103(a) as being unpatentable over Hardeman et al. (U.S. Patent 5,267,488) in view of Machida et al. (U.S. Patent 4,719,812).

The second issue is whether claims 9-11 should be rejected under 35 U.S.C. 103(a) as being unpatentable over Hardeman ('488) in view of Machida et al.('812) as applied to claims 1-5,7-8 and 6-12 above, and further in view of Burkett (U.S. Patent 5,566,591).

VII. GROUPING OF CLAIMS

Independent claim 1 is believed to be independently patentable over the cited art for the reasons set forth below. Dependent claims 2-5, and 7-16 stand or fall together with independent claim 1.

VIII. ARGUMENTS

(i) 35 U.S.C. 101

There is no rejection based upon 35 U.S.C. 101.

(ii) 35 U.S.C. 112

There is no rejection based upon 35 U.S.C. 112.

(iii) 35 U.S.C. 102

There is no rejection based upon 35 U.S.C. 102.

(iv) 35 U.S.C. 103

(Issue No. 1) Claims 1-5, 7-8, and 6-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No. 5,267,488 to Hardeman et al. in view of U.S. patent No. 4,719,812 to Machida et al.

The rejection of claims 1-5 in particular is based on the Examiner's reading of claims 1-5 on a combination of selected features of Hardeman's "Drive Train Conversion Apparatus" and Machida's "Transmission Casing Including a Hydraulic Clutch".

Appellants respectfully disagree with the Examiner's findings regarding Hardeman et al. at least where the Examiner writes that:

> "*Hardeman discloses a motor vehicle (V) comprising .....a clutch actuator device, the clutch actuator device including a clutch release device (36) with a clutch release drive source (62).*"
>
> "*Hardeman et al. further discloses ....., a control device....*"
>
> "*The control device is operable to control the clutch in an automated mode*",
>
> "*The clutch release drive source and the clutch release device are both integrated in the carrier element (see col. 5, lines 5-8)".*

In response to the foregoing statements by the Examiner, Appellants note that according to Hardeman et al., col. 4, line 68, to col. 5, line 4, the release bearing 36 is operating conventionally by apparatus including a lever (not shown) projecting from an operating shaft 62 housed in a bore 64 located in the adapter housing 10. The term "conventionally" in the context of an "early Volkswagen" (see col. 4, line 35), can only mean that the clutch is a "manually" operated clutch, as is also stated in col. 3, line 10 of

the Hardeman reference. This view is further supported by the fact that Hardeman lacks a control device that is operable to control the clutch in an automated mode, as required by claim 1 of the present application. Thus, contrary to the Examiner's findings:

- Hardeman has no clutch release drive source other than the driver's foot.
- Hardeman has no control device operable to control the clutch in an automated mode.
- Hardeman's "clutch operating means" which the Examiner found to be "provided integrally with the adapter housing 10" (col. 5, lines 5-8) obviously cannot include a drive source as required in claim 2 of the present application.

Appellants also respectfully disagree with the Examiner's finding that "*Machida et al. teaches an automatic clutch actuator device (3) comprising hydraulic conduits and hydraulic elements such as a valve and cylinder (11, 12, 13, 17).*"

Based on a careful analysis of the Machida et al. reference, Appellants found that Machida's elements 11, 12, 13 are hydraulic cylinders arranged on the outside of the transmission housing to operate the change speed mechanisms A and B (col. 2, lines 34-37) and that element 17 is a hydraulic valve for the manual operation of the forward/backward switching device C (col. 2, lines 54-57). A hydraulically operated multi-disk clutch 3 is referred to in col. 2, lines 16-17. A flow passage 38a for supplying oil to the clutch 3 is referred to in col. 4, lines 9-11. The flow passage 38a appears to lead into a concentric clutch release cylinder inside the clutch itself. Thus, Machida's clutch actuator

device in the form of the concentric clutch release cylinder and piston is integrated in the clutch itself. Consequently, Machida et al. does not conform to claim 1 of the present application which requires that "*at least portions of at least one of the clutch-actuator device and the control device are integrated in the carrier element; and said carrier element is arranged in an intermediate area between the clutch bell housing and the transmission housing*". Machida's multi-disk clutch with an actuator piston integrated in the clutch requires a more space-consuming design of the clutch and is thus a prime example for exactly the kind of problem that the present invention aims to solve. (See page 2 of the specification: "*Thus, a large number of components need to be arranged in the clutch bell housing, which leads to problems due to space limitations.*") .

A skilled-in-the-art person contemplating a combination of Hardeman et al. with Machida et al. would find no suggestion leading towards the solution proposed by the present invention. Hardeman alone already immensely increases the axial length of the power train. Machida at least requires more axial space than the solution proposed in the present invention. Thus, a skilled-in-the-art person looking for a solution to solve the "*problems due to space limitations*" as described in the present application would have no reason to combine Hardeman et al. with Machida et al. in order to solve those problems.

As a conclusion of the foregoing argument, Appellants respectfully assert that Hardeman et al. and Machida et al., whether considered individually or in any combination, would have been rejected by any skilled-in-the-art person as unsuitable to provide a solution in accordance with claim 1 of the present application and therefore fail to meet the criteria for making claim 1 of the present application unpatentable under 35 U.S.C. 103(a).

Consequently, the rejection of claim 1 as being unpatentable over Hardeman et al. (U.S. 5,267,488) in view of Machida et al. (U.S. 4,719,812) should be withdrawn and, since there are no further grounds for rejection, claim 1 should be allowed.

Furthermore, the rejections against dependent claims 2 to 5 and 7-8 and 12-16 should be considered a moot issue, as these claims should be allowed by virtue of their dependency on the presumably allowable claim 1.

(Issue No. 2) Claims 9-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent No. 5,267,488 to Hardeman et al. in view of U.S. patent No. 4,719,812 to Machida et al. as applied to claims 1-5, 7-8 and 6-12 above and further in view of U.S. patent No. 5,566,591 to Burkett.

This rejection is moot since the Burkett reference does not cure the deficiencies noted above of the primary references and moreover, claims 9-11 should be allowed as depending from what should be an allowed independent claim 1.

The Examiner does not expressly list claims 13-16 as being rejected on the first ground of rejection (see Issue 1) in the Office Action summary page; however, the Examiner later discusses these claims under the first ground of rejection in the body of the Office Action and therefore, Appellants believe that these claims have been rejected under 35 U.S.C. 103(a) over Hardeman et al. in view of Machida et al. On this belief, Appellants respectfully submit that these claims should be allowed as dependent from what should be an allowed independent claim 1.

IX. CLAIMS INVOLVED IN THE APPEAL

A copy of the claims involved in the present appeal is attached hereto as Appendix A. As indicated above, the claims in Appendix A do include the amendments filed by Applicant on April 11, 2003, and do not include the amendment(s) filed on February 27, 2004.

Conclusion

For the foregoing reasons, the final rejection of claims 1-5 and 7-16 should be reconsidered by the Examiner or reversed in its entirety by the Board. Claims 1-5 and 7-16 are patentable over the prior art of record. Accordingly, the Examiner's finding of unpatentability should be reversed. Such a disposition is earnestly solicited.

Dated: July 8, 2004

Respectfully submitted,

By _____

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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 09/982,136

1. A motor vehicle comprising an engine with an engine block; a clutch with a clutch-actuator device including at least one element from the group of hydraulic, mechanical and electronic elements, the clutch actuator device including a clutch-release device with at least one clutch-release drive source; a transmission adjacent to the clutch; a transmission housing surrounding the transmission; a clutch bell housing surrounding the clutch; a control device; and a carrier element; wherein the transmission housing is connected to the clutch bell housing and the latter is, in turn, connected to the engine block; the control device is operable to control at least the clutch in an automated mode; at least portions of at least one of the clutch-actuator device and the control device are integrated in the carrier element; and said carrier element is arranged in an intermediate area between the clutch bell housing and the transmission housing.

2. The motor vehicle of claim 1, wherein the clutch-release drive source is integrated in the carrier element.

3. The motor vehicle of claim 1, wherein the clutch release device is integrated in the carrier element.

4. The motor vehicle of claim 1, wherein the clutch actuator device comprises hydraulic conduits and hydraulic elements and at least part of said hydraulic conduits and elements are integrated in the carrier element.

5. The motor vehicle of claim 4, wherein the hydraulic elements comprise at least one of a hydraulic valve and a hydraulic cylinder.

6. (Canceled)

7. The motor vehicle of claim 1, wherein the carrier element functions as a rear wall that closes off the clutch bell housing towards the transmission.

8. The motor vehicle of claim 1, wherein the clutch bell housing comprises a rear housing wall and the carrier element is arranged to lie against the rear housing wall.

9. The motor vehicle of claim 1, wherein the carrier element is made as a casting.

10. The motor vehicle of claim 9, wherein the casting is from the group consisting of steel castings, iron castings and tempered castings.

11. The motor vehicle of claim 9, wherein the actuator device has parts that are integrally molded into the casting.

12. The motor vehicle of claim 1, wherein the clutch bell housing and the transmission housing are made as separate components and the carrier element forms a connection between the clutch bell housing and the transmission housing.

13. The motor vehicle of claim 1, wherein the clutch bell housing and the transmission housing are connected as a housing unit and the carrier element is arranged inside said housing unit in a transition area between the clutch bell housing and the transmission housing.

14. The motor vehicle of claim 11, wherein the carrier device with the integrally molded-in parts forms an assembly unit.

15. The motor vehicle of claim 14, wherein the assembly unit is preassembled.

16. The motor vehicle of claim 15, wherein the assembly unit is tested before being installed.

TRANSMITTAL OF APPEAL BRIEF

Docket No.
03191/000J838-US0

In re Application of: Wolfgang Reik et al.

Application No.	Filing Date	Examiner	Group Art Unit
09/982,136-Conf. #7044	October 12, 2001	J. K. Smith	3682

Invention: MOTOR VEHICLE

TO THE COMMISSIONER OF PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed: April 9, 2004 .

The fee for filing this Appeal Brief is 330.00 .

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Dated: 7/8/04

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